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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,032	03/02/2004	Yoshihisa Ogata	11-230	9752

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EXAMINER

ZANELLI, MICHAEL J

ART UNIT PAPER NUMBER

3661

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,032

Applicant(s)

OGATA ET AL.

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 3-7 and 9-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This is in response to the communication filed 9/20/05. Claims 1-16 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 2 and 14-16 stand rejected under 35 U.S.C. 102(b) as being anticipated by Aga et al. (2002/0087235).

A. As per claims 1, 15 and 16, Aga discloses an apparatus, and method of use thereof, for activating an occupant restraint system based on the type of rollover distinguished (Abs). The apparatus (Fig. 1) includes a roll condition sensor (22), lateral acceleration sensor (21), a processor-based control module (10) which performs the functions of determining the type of rollover (i.e., trip-over) based on characteristics or pattern of signals obtained from the roll condition and lateral acceleration sensors and determining a criterion (threshold) for recognizing a rollover [0066]-[0071] , and means (31-34) for activating various occupant restraint devices (Figs. 6-13)

B. As per claims 2 and 14, as above whereby a trip-over is recognized by the characteristics or pattern of the lateral acceleration signal [0069].

4. Claims 8 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Aga et al. in view of Tobaru et al. (6,618,655).

A. As per claims 8 and 13, Aga is applied as above whereby the roll condition sensor is a roll rate sensor (22) for producing a roll rate signal. The processor-based control module (10) uses the roll rate signal to produce a roll angle [0054]. The claimed invention differs in that both a roll rate sensor and roll angle sensor are provided and the

outputs used to access a two-dimensional map which defines a non-rollover region and a rollover region relative to a threshold line. The rollover determination criteria is set by adjusting the threshold line.

B. Tobaru et al. discloses establishing a threshold line separating a rollover region from a non-rollover region on a two-dimensional map having roll angle and roll rate as parameters (Abs.; Fig. 3). Like Aga, one can distinguish the type of rollover by using lateral acceleration and roll condition. As noted in col. 13, lines 13-30, the threshold line in the two-dimensional map may be shifted or adjusted to reflect the type of rollover distinguished. One of ordinary skill in the art would have found it obvious to include the teachings of Tobaru in the rollover detection system of Aga because it would have provided additional criterion for distinguishing the type and likelihood of an actual rollover event.

5. Claims 3-7 and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As per claim 3, the prior art of record does not show or reasonably suggest, in combination with the other claimed subject matter, a set of parameters indicative of the lateral acceleration including at least length of duration of the lateral acceleration. As per claim 9, the prior art of record does not show or reasonably suggest, in combination with the other claimed subject matter, a lateral speed detector whereby the rollover determination criteria unit sets the rollover determination criterion based on lateral speed of the vehicle prior to a rise in the lateral acceleration. Dependent claims 4-7 and 10-12 are distinguishable for at least the same reasons.

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6. **REMARKS**

A. As per applicant's arguments regarding where in the Aga reference trip-over pattern is recognized based on the lateral acceleration, see paragraphs [0060-0071], as noted in the rejection. The curves are in fact "patterns", within the broadest sense of the term, used by the processor to determine the type of rollover.

B. As per applicant's arguments regarding the number of "elements" used to perform a given function(s), the processor of Aga performs a plurality of functions based on executed software whereby the executed functions act as various "elements". As noted above Aga uses the lateral acceleration to determine the type of rollover.

C. As per applicant's arguments regarding interpretation of claim 15, the specification at page 9 discloses that the controller can be configured as a computer with programs for causing the computer to perform the various functions. Thus, the corresponding structure for that function(s) is a programmed computer. As noted above, Aga discloses using a computer with executable software for performing rollover recognition. As noted on page 15, lines 15-20 of applicant's specification, recognizing the pattern of trip-over may be achieved using at least one parameter, including rate of lateral acceleration of the vehicle. Aga discloses that changes in at least lateral acceleration is taken into account in recognizing trip-over type rollovers [0069].

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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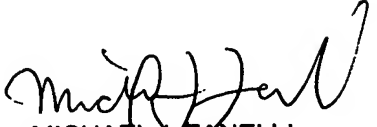
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969. The examiner can normally be reached on Monday-Thursday 8:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz


MICHAEL J. ZANELLI
PRIMARY EXAMINER